PRE-DEMOLITION/DISPOSAL ASBESTOS SURVEY REPORT
AT THE
FORMER BAYONNE BARREL & DRUM PROPERTY
150-154 Raymond Boulevard
Newark (Essex County), New Jersey

Prepared For

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1.0 INTRODUCTION

Code Enviro-Sciences, L.L.C. (CODE) was retained by de maximis, Inc. to conduct a pre-demolition asbestos/disposal survey of the interior and exterior of nine building structures, (Buildings 1 through 9) if accessible, one little pump house building and the above-ground storage tanks located at the Bayonne Barrel and Drum site located at 150-154 Raymond Boulevard in Newark, New Jersey. The Bayonne Barrel and Drum Site (site) occupies approximately 15 acres of land on Block 5002, Lots 3 and 14. The property has an elongate shape and is bounded by Raymond Boulevard and an exit ramp from Routes 1 and 9 to the north and west, an entrance to the New Jersey Turnpike to the east and south, and a cinema parking lot to the southwest. The site location is presented as Figure 1.

Nine buildings exist at the Bayonne Barrel and Drum site and are located in the northern portion of the site. Building descriptions and estimated construction dates are summarized as follows:

Building Number	Estimated Construction Date	Description/Use
1	1967 - 1968	Concrete block building used for reconditioning of closed head drums, and for shot blasting open and closed head drums
2	1964 - 1965	Drum staging building for the furnace
	1964 - 1965	Furnace for the cleaning of drums
3	Prior to or during the early 1930's	Concrete and brick building used to receive open head drums after cleaning in the furnace
4	Late 1951 - 1952	Transite and steel building used for the reconditioning of open head drums
5	1967	Paint storage building
6	Prior to or during the early 1930's	Office building
7	Prior to or during the early 1930's	Machine shop and maintenance garage
8	1940's	Boiler House
9	1968 - 1969	Service Building

Bayonne Barrel and Drum operated as an unlicensed treatment, storage and disposal (TSD) facility on the property from 1940 to the early 1980's when the company filed for bankruptcy under Chapter 11. Drum cleaning and reclamation operations included washing of open and closed-head drums and incineration of open head drums.

Seven of the nine buildings were one-story. Building 3 and Building 8 were two-stories. The majority of the buildings were constructed of brick and/or cinder block walls, and concrete slab floors with corrugated metal or wood roofs. The little pump house building was constructed of insulated corrugated fiberglass walls and a metal roof. Building 6 had been previously

demolished and only the outer walls remained. Building 7 had collapsed and could not be entered. A Site Plan of the property is included as Figure 2.

The services performed by CODE in the buildings and on the above-ground storage tanks included sample collection of all suspected asbestos-containing materials (ACM). Photographs of each sample location were taken to document areas that might contain asbestos and subsequently need an asbestos abatement prior to demolition activities. All sample locations are identified on Figure 3. Photographs of the sample locations can be found in Appendix A.

2.0 PURPOSE AND SCOPE OF WORK

The purpose of this pre-demolition asbestos/disposal survey was to evaluate the presence or absence of asbestos-containing materials that would prove environmentally sensitive, if allowed to mix with general demolition debris for disposal.

Materials identified on the subject site that could potentially be asbestos-containing materials were as follows:

Building Interiors
- Floor tiles, wall molding, piping wrap and insulation, boiler insulation, ceiling tiles, wall and ceiling insulation, window caulking, fire door insulation, furnace insulation.

Building Exterior
- Roofing material, transite, pipe wrap and insulation,

Above-Ground Storage Tanks
- Pipe elbow insulation

The Scope of Work was performed as agreed to and outlined in CODE's proposal dated May 9, 2003. The following services were provided.

- Search, identify and collect samples of all pertinent items and areas.
- Each item/area that was sampled was identified on a scale drawing of the site, prepared in an AutoCAD format and made a part of the final report. Table 1 also presents the asbestos sampling summary.
- Provide an estimate of quantity of asbestos-containing materials.

A total of 60 asbestos samples were collected by CODE as follows:

• Samples collected from roofing materials	19
• Samples collected from piping (wrap and insulation)	19
• Samples collected from ceiling tiles	3
• Samples collected from ceiling insulation	3
• Samples collected from wall insulation	2
• Samples collected from transite	2
• Samples collected from floor tile	6
• Samples collected from the boiler	2
• Miscellaneous asbestos samples	4

TOTAL 60

Opinions relative to the potential presence/absence of asbestos presented in this report are based upon the analytical results obtained from EMSL Analytical, Inc., Westmont, New Jersey.

3.0 QUALITY ASSURANCE/ QUALITY CONTROL

Described below is the site-specific quality assurance/quality control (QA/QC) program implemented during the pre-demolition asbestos/disposal survey activities conducted at this facility. The pre-demolition asbestos/disposal survey was performed under the supervision of Harry H. Elias, P.E., CHMM and Mr. Vincent Betro (Project Manager) and headed by CODE's asbestos sampling team. This team included Ms. Jodie M. Bell, (Associate Project Manager), and Vincent Betro (AHERA Certified Inspector).

3.1 Asbestos Sampling Methodology

Field personnel wore safety boots, tyvex coveralls, latex gloves and half-face respirators with HEPA filters on air purifying cartridges.

The asbestos samples were collected utilizing a hammer, chisel, pliers, spray bottle filled with water and latex-gloved hands. Prior to sample collection, sample locations were identified and made wet with the help of a spray bottle filled with water. The sample was collected from three to four different homogeneous locations and a composite sample was placed in airtight zip-lock plastic bags. Latex gloves were replaced after each sample was collected. Following collection, the asbestos samples were labeled and placed in a laboratory-supplied container. Appropriate chain-of-custody documentation was maintained to ensure proper handling and analysis of the samples. A copy of the chain-of-custody form is included in Appendix B along with the laboratory data package.

4.0 FIELD ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

All samples were collected in accordance with Section 3.1 of this report. Table 1 summarizes the asbestos sampling locations. Table 2 presents the asbestos sampling results summary and the laboratory analytical data package is presented in Appendix B.

4.1 Asbestos Samples

On August 4 and 5, 2003, a total of 60 asbestos samples (including multi-layered samples) were collected from Buildings 1 through 9, the little Pump House Building, piping between Buildings 3 and 7, and piping from the 60,000-gallon above-ground storage tank. Nineteen asbestos samples were collected from roofing materials, 19 from piping insulation and/or pipe wrap, 3 ceiling tile samples, 3 ceiling insulation samples, 2 wall insulation samples, 1 roof transite sample and 1 side building transite sample, 6 floor tile and mastic samples, 2 samples from insulation surrounding the boiler, 1 sample from fire door insulation, 1 sample from the furnace insulation, 1 window caulking and 1 vinyl wall molding sample.

Before collecting samples, sample areas were wetted using a spray bottle filled with water. Samples were collected with the help of chisel and/or pliers and placed in airtight zip-lock plastic bags. The samples were properly labeled and sent to EMSL Analytical, Inc., Westmont, New Jersey.

4.1.1 Building 1

Building 1, which is 32,645 square feet (sq. ft.), is located adjacent to Building 2. The structure is comprised of a concrete slab floor, cinder block walls and a corrugated metal roof. The areas identified with Building 1 as potentially being ACM were 4-inch diameter overhead pipe runs, 4-inch diameter pipes that descended along a vertical steel joist, and the roofing materials.

The overhead pipes and the pipes that descended along the vertical steel joist appeared to be insulated with yellow wool-like material wrapped in aluminum. Samples 046-Bldg1 and 047-Bldg1 (Photo 25) were collected and analyzed from the overhead piping insulation and sample 022-Bldg1 (yellow wool-like insulation) (Photo 26) was collected from a pipe run attached to the joist. The appearance of the material sampled on the pipe runs was the same.

The roofing samples were collected from a piece of roof on the floor and from the outer roof itself. Samples 020-Bldg1 (roof shingle) and 021-Bldg1 (roof-flashing-2 layers) were collected from the floor. Samples 029-Bldg1 (tar layer) and 030-Bldg1 (tar and flashing, 2-layers) (Photo 17) were collected from the roof overhanging the loading dock, which was different than the main roof area. The main roof and the loading dock overhang were relatively flat.

4.1.2 60,000 Gallon Above-Ground Storage Tank (AST)

Three large above-ground storage tanks are present adjacent to Building 1. Only one of the three had an insulated pipe elbow. Samples 002-AST and 003-AST (Photo 2) were collected from the outer wrap and inner insulation of the pipe elbow of the 60,000-gallon AST.

4.1.3 Little Pump House Building

The little pump house is located adjacent to Building 1. The building structure consists of corrugated fiberglass walls and a corrugated metal roof. There was cellulose-like insulation that lined the inside walls. Sample 004-little bldg (Photo 4) was collected from the wall insulation.

4.1.4 Building 2

Building 2, which is 2,686 sq. ft., is located adjacent to Building 1. The building is constructed of a concrete slab floor with numerous pits, cinder block walls and a wood roof. The areas identified with Building 2 as potentially being ACM were window caulking, roofing material, and furnace insulation. Although piping is present in the building, none is insulated.

Sample 037-Bldg2 (Photo 21) was collected from cement-like inner wall insulation of the furnace. Samples 035-Bldg2 (top layer-2-layers) and 036-Bldg2 (bottom layer) (Photo 20) were collected from the roofing material on the main roof, which consisted of tar and flashing. The roof was relatively flat.

Sample 023-Bldg2 (Photo 12) was window caulking material collected from around one window pane. The results of this sample are considered to be representative of all window caulking in all buildings.

4.1.5 Building 3

Building 3, which is 16,363 sq. ft., is located adjacent to Buildings 4, 6 and 7. The building is constructed of a concrete slab floor, brick walls and a wood roof. The building is two-stories, but due to poor structural integrity, the second floor could not be examined. As viewed from the first floor area, insulated piping was visible on the second floor. The areas identified on the first floor of Building 3 as potentially being ACM were 2-inch diameter and 4-inch diameter overhead pipe runs insulated with yellow wool-like material, and roofing material. Sample 054-Bldg3 (Photo 30) was collected from the overhead pipe insulation. Sample 060-Bldg3 (multi-layered) (Photo 34) was collected from roofing material located on the floor of Building 3. The roofing material was comprised of tar and flashing over wood.

4.1.6 Piping Between Buildings 3 & 7

Two 2-inch diameter overhead pipes were present extending from the outer corner of Building 3 to the outer corner of Building 7. The pipes were insulated and wrapped with suspected ACM. Only one of the two pipes was sampled, since the materials appeared to be the same. Sample 039-Bldg3&7 (Photo 22) was collected from the pipe wrap, and sample 040-Bldg3&7 (Photo 22) was collected from the yellow/gray wool-like insulation.

4.1.7 Building 4

Building 4, which is 23,345 sq. ft., is located adjacent to Buildings 5 and 3. The building is constructed of brick walls, a concrete slab floor, wood beams and joists, and a wood roof. The building was divided into a front building and rear building.

In the front building, a Gate House was present. The Gate House contained 9-inchx9-inch floor tiles, 12-inch x 12-inch ceiling tiles, ceiling insulation, and 2-inch and 4-inch diameter piping with insulation. Sample 024-Bldg4 (Photo 14) was collected from the gray 9-inch x 9-inch vinyl floor tiles; sample 025-Bldg4 (Photo 15) was collected from the ceiling tiles; sample 026-Bldg4 (Photo 15) was collected from the pink wool-like ceiling insulation and sample 027-Bigd4 (Photo 16) was collected from a piece of roof transite laying on the floor.

Both 2-inch diameter and 4-inch diameter insulated pipe runs were present in Building 4. Samples 048-Bldg4 and 049-Bldg4 (Photo 27) were collected from the yellow wool-like pipe insulation and pipe wrap located on the 2-inch diameter piping in the front building. In addition, samples 050-Bldg4 and 051-Bldg4 (Photo 28) were collected from the yellow wool-like pipe insulation and pipe wrap on the 4-inch diameter piping in the front building. Sample 052-Bldg4 (Photo 29) was collected from the yellow-wool like piping insulation located in the rear building, and sample 053-Bldg4 (Photo 29) was collected from the piping wrap in the rear building.

Building 4 has a pitched main roof area and a flat roof over the loading dock area. Samples 031-Bldg4 (layer 1, which was 4 layers) and 032-Bldg4 (bottom layer) were collected from the loading dock roof in the front building, which consisted of tar, flashing and mastic. Sample 033-Bldg4 (transite-white) (Photo 19) was collected from the main roof, which consisted of transite over tar and flashing. Sample 034-Bldg4 (Photo 19)

(transite-gray) was collected from the upper half side of the building. Sample 038-Bldg4 (Photo 18) (multi-layered) was collected from the rear roof of the building.

4.1.8 Building 5

Building 5, which is 4,007 sq. ft., is located adjacent to Building 4. The building is constructed of cinder block walls, a concrete slab floor and a corrugated metal roof. Building 5 consisted of a 4-inch diameter pipe run with aircell insulation, and a potential ACM insulating a pipe elbow to an overhead heater in the front of the building. Sample 055-Bldg5 (aircell) (Photo 31) was collected from the pipe run. Sample 056-Bldg5 (Photo 32) was collected from the pipe elbow insulation to the heater. Sample 057-Bldg5 (Photo 33) was collected from pipe elbow insulation in the rear of Building 5, which appeared to be a different type of insulation than that of the heater pipe elbow insulation.

Samples 058-Bldg5 (top layer-tar) and 059-Bldg5 (bottom layer-roof felt) were collected from the roofing material that covered the corrugated metal.

4.1.9 Building 6

Building 6 is formerly 8,360 sq. ft, located directly adjacent to Building 7. Other than the outer brick walls and some of the concrete slab floor, Building 6 had collapsed and most of the building debris was already removed. However, a small outer room area attached to the main building on the eastern side had its collapsed roof present. A sample of the roofing materials (sample 001-Bldg6) Photo 1) was collected.

4.1.10 Building 7

Building 7 is formerly 8,848 sq. ft, located directly adjacent to Building 6. Building 7 had collapsed and most of the building debris was inside the outer walls. Building 7 could not be entered. The complete construction of the building could not be assessed. However, the outer wall was multi-layered and consisted of wood covered with flashing and tar and additional potential ACM material below it. Sample 028-Bldg7 (multi-layered) (Photo 13) was collected from the outer wall.

4.1.11 Building 8

Building 8, which is 2,738 sq. ft., is attached to Building 9. Building 8 is constructed of cinder block walls, concrete slab floor and a corrugated metal roof. A portion of Building 8 housed two large boilers. The boilers were encased in insulation. Piping and elbow insulation was also present in the boiler room. Sample 005-Bldg8 was collected from the outer insulation layer surrounding the boilers. Sample 006-Bldg 8 was collected from the inner insulation layer surrounding the boilers. Sample 007-Bldg8 (Photo 4) was collected from the boiler pipe insulation and sample 008-Bldg8 (Photo 4) was collected from the 4-inch diameter pipe insulation above the boilers.

Sample 019-Bldg8 (Photo 11) was insulation collected from a fire door in the other portion of Building 8.

Sample 043-Bldg8 (3-layers) (Photo 24) was collected from the first layer of the roofing materials. Sample 044-Bldg8 (shingle) (Photo 24) was collected from the second layer

of the roofing materials and sample 045-Bldg8 (tar paper) (Photo 24) was collected from the third layer of the roofing materials. The main roof was pitched.

4.1.12 Building 9

Building 9, which is 1,848 sq. ft., is attached to Building 8. Building 9 is constructed of brick walls, a concrete slab floor and a wood roof, and is divided into 6 individual rooms (see Figure 3 for room locations). Each of the 6 rooms potentially contained ACM as follows:

Room 1 consisted of a drop ceiling with small 12-inch x 12-inch upper ceiling tiles, and 12-inch x 12-inch drop ceiling tiles. Above the upper ceiling tiles, yellow wool-like insulation (sample 016-Bldg9) (Photo 8) was present. In addition, there were red 9-inch x 9-inch vinyl floor tiles (sample 009-Bldg9) (Photo 5) and a vinyl wall border (sample 010-Bldg9) (Photo 5) present in Room 1.

Room 2 consisted of a drop ceiling with small 12-inch x12-inch upper ceiling tiles (sample 012-Bldg9) (Photo 7) and 12-inch x 12-inch drop ceiling tiles (015-Bldg9) (Photo 7). Above the upper ceiling tiles, yellow wool-like insulation was present. In addition, there were tan 12-inch x 12-inch vinyl floor tiles (013-Bldg9) present.

Room 3 consisted of small 12-inch x 12-inch upper ceiling tiles and tan 12-inch x 12-inch vinyl floor tiles (011-Bldg9) (Photo 6).

Room 4 consisted of small 12-inch x 12-inch upper ceiling tiles, pink wool-like insulation above the upper ceiling tiles and tan 12-inch x 12-inch vinyl floor tiles. One sample of yellow vinyl floor tile (018-Blg9) (Photo 10) was collected and analyzed. No samples were collected from the ceiling tiles or insulation in this room because the same materials were found in other rooms, which were sampled.

Room 5 consisted of small 12-inch x 12-inch upper ceiling tiles, pink wool-like insulation above the upper ceiling tiles and tan 12-inch x 12-inch vinyl floor tiles (sample 014-Bldg9).

Room 6 consisted of small 12-inch x 12-inch upper ceiling tiles, pink wool-like insulation (017-Bldg9) (Photo 9) above the upper ceiling tiles and 12-inch x 12-inch vinyl floor tiles. The vinyl floor tile was not sampled because the same material was found in other rooms, which were sampled.

Sample 041-Bldg9 (multi-layered) (Photo 23) was collected from the first layer of the roofing materials. Sample 042-Bldg9 (multi-layered) (Photo 23) was collected from the second layer of the roofing materials. The main roof was relatively flat.

4.2 Asbestos Sampling Results

A total of 60 asbestos samples were collected and submitted for analysis. Some of the samples were multi-layered and were separated at the laboratory. Therefore the laboratory reported a total of 66 sample results, which are discussed below.

4.2.1 Building 1

A total of six samples (046-Bldg1, 047-Bldg1, 022-Bldg1, 020-Bldg1, 029-Bldg1 and 030-Bldg1) were collected and submitted for analysis associated with Building 1. Samples 046-Bldg1, 047-Bldg1 and 022-Bldg1 collected from the piping insulation inside Building 1. The sample results did not indicate any detectable asbestos. Samples 020-Bldg1 (shingle) and 021-Bldg1 (flashing) were collected from the Main Roof materials. Sample 020-Bldg1 results did not indicate any detectable asbestos. However, sample 021-Bldg1 revealed the presence of chrysotile asbestos at 30%.

Samples 029-Bldg1 and 030-Bldg1 were collected from the roofing materials on the overhang in the loading dock area. The results for 029-Bldg1 exhibited the presence of chrysotile asbestos at 4% in the first layer of material. However, the results for sample 030-Bldg1 indicated asbestos was not detected in the second layer of the overhang roofing materials.

4.2.2 60,000 Above-Ground Storage Tank (AST)

Only one sample was collected and analyzed from the pipe elbow of the 60,000-gallon above-ground storage tank. Samples 002-AST and 003-AST were collected from the outer wrap and inner insulation of the pipe elbow. The results of these samples exhibited the presence of chrysotile asbestos at 10% and 15%, respectively.

4.2.3 Little Pump House Building

One sample (004-Little Bldg) was collected and analyzed from the wall insulation of the little pump house building. The results indicated no detectable asbestos.

4.2.4 Building 2

A total of four samples (023-Bldg2, 035-Bldg2, 036-Bldg2 and 037-Bldg2) were collected and submitted for analysis associated with Building 2. Sample 023-Bldg2 (window caulking) results indicated no asbestos present. The results for samples 035-Bldg2 and 036-Bldg2 (Main Roof layers 1 and 2, respectively) exhibited the presence of chrysotile asbestos at 15% in sample 035-Bldg2, but no asbestos was detected in sample 036-Bldg2.

Sample 037-Bldg2 (furnace insulation) results did not indicate any detectable asbestos.

4.2.5 Building 3

A total of two samples (054-Bldg3 and 060-Bldg3) were collected and analyzed associated with Building 3. Samples 054-Bldg3 (wool pipe insulation) and sample 060-Bldg3 (roofing material) indicated that asbestos was not detected in either sample.

4.2.6 Piping Between Buildings 3 & 7

Two samples, 040-Bldg9 and 041-Bldg9 were collected and analyzed from the outer and inner piping wrap. These sample results did not indicate any detectable asbestos.

4.2.7 Building 4

A total of fifteen samples (024-Bldg4 through 027-Bldg4, 031-Bldg4 through 034-Bldg4, 038-Bldg4, 048-Bldg through 053-Bldg4) were collected and analyzed associated with Building 4. Sample 024-Bldg4 which was collected from the Gate House portion of Building 4 was separated at the laboratory into two samples, floor tile and mastic. The sample of floor tile exhibited the presence of chrysotile asbestos at <1%. The mastic however, indicated that asbestos was not detected. Samples 025-Bldg4 (12-inch x 12-inch ceiling tile) and 026-Bldg4 (ceiling insulation) were also collected from the Gate House portion. These sample results did not indicate any detectable asbestos.

Sample 027-Bldg4 (transite piece on the floor) exhibited the presence of chrysotile asbestos at 18%.

Samples 031-Bldg4 and 032-Bldg4 were collected and analyzed from the first layer and bottom layer of the loading dock roof. Sample 031-Bldg4 exhibited the presence of chrysotile asbestos at 5%, but sample 032-Bldg4 did not indicate any detectable asbestos.

Sample 033-Bldg4 (Main Roof transite) and sample 34-Bldg4 (siding-top half transite) both exhibited the presence of chrysotile asbestos at 20% and 18%, respectively.

Samples 048-Bldg4 (pipe insulation), 049-Bldg4 (pipe wrap) 050-Bldg4 (pipe insulation) and 051-Bldg4 (pipe wrap) were collected and analyzed from the front building. These sample results did not indicate any detectable asbestos.

Samples 038-Bldg4 (roofing materials), 052-Bldg4 (pipe insulation) and 053-Bldg4 (pipe wrap) were collected and analyzed from the rear building. The result of sample 038-Bldg4 exhibited the presence of chrysotile asbestos at 20%. Samples 052-Bldg4 and 053-Bldg4 results did not indicate any detectable asbestos.

4.2.8 Building 5

A total of five samples (055-Bldg5 through 059-Bldg5) were collected and analyzed associated with Building 5. Sample 055-Bldg5 (aircell pipe insulation) exhibited the presence of chrysotile asbestos at 15%. In addition, samples 056-Bldg5 and 057-Bldg5 both collected from pipe elbows exhibited the presence of chrysotile asbestos at 12% and 5%, respectively. Samples 058-Bldg5 and 059-Bldg5 were collected and analyzed from the first and second layers of the Main Roof. Sample 058-Bldg5 exhibited the presence of chrysotile asbestos at 25%, but sample 059-Bldg5 did not indicate any detectable asbestos.

4.2.9 Building 6

Only sample 001-Bldg6 (roofing material) was collected and analyzed from Building 6. The results did not indicate any detectable asbestos.

4.2.10 Building 7

Only sample 028-Bldg6 (multi-layered outer wall)) was collected and analyzed from Building 7. The results did not indicate any detectable asbestos.

4.2.11 Building 8

A total of eight samples (005-Bldg8 through 008-Bldg8, 019-Bldg8, 043-Bldg8 through 045-Bldg8) were collected and analyzed associated with Building 8. Samples 005-Bldg8 and 006-Bldg8 were collected and analyzed from the outer and inner boiler insulation layers. Sample 005-Bldg8 exhibited the presence of chrysotile asbestos at 15%. However, sample 006-Bldg8 did not indicate any detectable asbestos.

Sample 007-Bldg8 was collected and analyzed from the boiler pipe insulation. The sample results exhibited the presence of chrysotile asbestos at 35%.

Sample 008-Bldg8 was collected and analyzed from pipe insulation in Building 8. The sample results did not indicate any detectable asbestos.

Sample 019-Bldg8 was collected and analyzed from insulation inside a steel fire door. The sample results did not indicate any detectable asbestos.

Samples 043-Bldg8 through 045-Bldg8 were collected and analyzed from three layers of roofing materials associated with Building 8. The sample results did not indicate any detectable asbestos.

4.2.12 Building 9

A total of twelve samples (009-Bldg9 through 018-Bldg9, 041-Bldg9 and 042-Bldg9) were collected and analyzed in association with Building 9. Sample 009-Bldg9 which was collected from 9-inch x 9-inch vinyl floor tile in Room 1 in Building 9 was separated at the laboratory into two samples, floor tile and mastic. The sample of floor tile exhibited the presence of chrysotile asbestos at 10%. The sample of mastic did not indicate any detectable asbestos.

Sample 010-Bldg9 was collected and analyzed from vinyl wall molding in Room 1 of Building 9. The sample result did not indicate any detectable asbestos.

Sample 011-Bldg9 which was collected and analyzed from 12-inch x 12-inch vinyl floor tiles in Room 3 in Building 9 was separated at the laboratory into two samples, floor tile and mastic. Both the floor tile and mastic exhibited the presence of chrysotile asbestos at <1%.

Samples 012-Bldg9 and 015-Bldg9 was collected and analyzed from 12-inch x 12-inch upper and lower ceiling tiles in Room 2 in Building 3. Both of the sample results did not indicate any detectable asbestos.

Sample 013-Bldg9 which was collected and analyzed from 12-inch x 12-inch vinyl floor tiles in Room 5 in Building 9 was separated at the laboratory into two samples, floor tile and mastic. Both the floor tile and mastic exhibited the presence of chrysotile asbestos at 2% and 4%, respectively.

Sample 014-Bldg9 which was collected and analyzed from 12-inch x 12-inch vinyl floor tiles in Room 2 in Building 9 was separated at the laboratory into two samples, floor tile and mastic. Both the floor tile and mastic exhibited the presence of chrysotile asbestos at 2% and 4%, respectively.

Samples 016-Bldg9 and 017-Bldg9 (ceiling insulation) were collected and analyzed from Rooms 1 and Room 6 in Building 9. The results of both samples did not indicate any detectable asbestos.

Sample 018-Bldg9 which was collected and analyzed from 12-inch x 12-inch vinyl floor tiles in Room 4 in Building 9 was separated at the laboratory into two samples, floor tile and mastic. The results of both samples did not indicate any detectable asbestos.

Samples 041-Bldg9 and 042-Bldg9 were collected and analyzed from the first and second layer roofing materials on the Main Roof. Both samples exhibited the presence of chrysotile asbestos at 10% and 15%.

5.0 FINDINGS AND RECOMMENDATIONS

CODE's site reconnaissance and the laboratory analyses of the sixty samples collected (sixty-six with laboratory separation) indicate that there is a presence of chrysotile asbestos in or on Buildings 1, 2, 4, 5, 8 and 9. Specifically, asbestos was confirmed as follows:

- in one or more layers of the roofing materials on Buildings 1, 2, 4, 5 and 9.
- in transite found on the main roof and top half of the side of Building 4.
- in the pipe elbow on the 60,000 gallon AST, pipe insulation on the pipe run in Building 5 and in the pipe elbow of the overhead heater in Building 5.
- in the 9-inch x 9-inch and 12-inch x 12-inch vinyl floor tiles and/or mastic in Buildings 9 and
- in the inner and outer boiler insulation surrounding the boiler and the boiler piping in Building 8.

Since, the above-detected asbestos material is classified as a hazardous waste, it should be removed prior to demolition of the buildings structure. CODE estimates that there are ACM that should be removed prior to demolition and properly labeled and disposed. These ACM are as follows:

BUILDING NO.	ROOF (SQ. FT.)	TRANSITE SIDING (SQ. FT)	BOILER WRAP (SQ. FT)	PIPING (LINEAR FT.)	FLOOR TILE (SQ. FT.)
1	32,644	0	0	0	0
2	3,446	0	0	0	0
60,000 gallon AST	NA	NA	NA	6	0
3	0	0	0	0*	0*
4	23,344	3,360	0	0	0
5	4,006	0	0	110	0
8	901	0	2,000	5	0
9	1,850	0	0	0	1,100

* Could not inspect second floor due to poor structural integrity of the building

Table 1 ASBESTOS SAMPLING SUMMARY

Bayonne Barrel & Drum Site

Sample Number	Description	Location	Color
001-Bldg6	Roof (multi-layered) Tar, Flashing	Building 6	Black
002-AST	Pipe elbow-outer wrap	60,000 gallon AST	Tan/Black
003-AST	Pipe elbow-insulation	60,000 gallon AST	White
004-Little Bldg	Wall insulation-	Little Pump House Building	Brown
005-Bldg8	Boiler insulation-outer (layer 1)	Building 8	White
006-Bldg8	Boiler insulation –inner (layer 2)	Building 8	Gray
007-Bldg8	Boiler pipe insulation	Building 8	White/Gray
008-Bldg8	Pipe insulation	Building 8	White
009-Bldg9	9"x 9" Floor tile and mastic	Building 9 (Room 1)	Red
010-Bldg9	Vinyl border molding	Building 9 (Room 1)	Brown
011-Bldg9	12"x12" Floor tile and mastic	Building 9 (Room 3)	Tan
012-Bldg9	12"x12" ceiling tile-upper	Building 9 (Room 2)	White/Tan
013-Bldg9	12"x12" Floor tile and mastic	Building 9 (Room 2)	Tan
014-Bldg9	12"x12" Floor tile and mastic	Building 9 (Room 2) 5	Tan
015-Bldg9	12"x12" ceiling tile-lower	Building 9 (Room 5) 2	White
016-Bldg9	Ceiling insulation-wool	Building 9 (Room 1)	Yellow
017-Bldg9	Ceiling insulation-wool	Building 9 (Room 6)	Pink
018-Bldg9	12"x12" Floor tile and mastic	Building 9 (Room 6) 4	Yellow
019-Bldg8	Fire door insulation	Building 8	Yellow
020-Bldg1	Roof shingle	Building 1	Black
021-Bldg1	Roof flashing (2-layers)	Building 1	Black
022-Bldg1	Pipe insulation-wool	Building 1	Yellow
023-Bldg2	Window-Caulking	Building 2	White
024-Bldg4	9"x 9" Floor tile and mastic	Building 4 (Gate House)	Gray

Text says RM 2 → Map shows RM # 3

Table 1 ASBESTOS SAMPLING SUMMARY

Bayonne Barrel & Drum Site

Sample Number	Description	Location	Color
025-Bldg4	12"x12" ceiling tile	Building 4 (Gate House)	White/Tan
026-Bldg4	Ceiling insulation-wool	Building 4 (Gate House)	Pink
027-Bldg4	Transite ceiling piece on floor	Building 4	White
028-Bldg7	Outer wall (multi-layered)	Building 7	Black
029-Bldg1	Loading dock roof (layer 1)	Building 1	Black
030-Bldg1	Loading dock roof (layer 2)	Building 1	Black
031-Bldg4	Loading dock roof (layer 1)	Building 4	Black
032-Bldg4	Loading dock roof (bottom layer)	Building 4	Brown
033-Bldg4	Main roof-transite	Building 4	White
034-Bldg4	Siding-top half-transite	Building 4	Gray
035-Bldg2	Main roof-layer 1 (2-layers)	Building 2	Black
036-Bldg2	Main roof-layer 2 (bottom)	Building 2	Brown
037-Bldg2	Incinerator insulation (furnace)	Building 2	Gray
038-Bldg4	Rear roof (multi-layered)	Building 4	Black
039-Bldg7& 3	Pipe between Buildings 7 & 3-outer wrap	Buildings 3 & 7	Black
040-Bldg7& 3	Pipe between Buildings 7 & 3-inner-wool	Buildings 3 & 7	Gray/Yellow
041-Bldg9	Main roof-layer 1 (multi-layered)	Building 9	Black
042-Bldg9	Main roof-layer 2 (multi-layered)	Building 9	Black
043-Bldg8	Roof shingle, layer 1 (multi-layered)	Building 8	Black
044-Bldg8	Roof shingle, layer 2 (multi-layered)	Building 8	Lt. Brown
045-Bldg8	Roof paper, layer 3	Building 8	Black
046-Bldg1	Pipe insulation-wool	Building 1	Yellow
047-Bldg1	Pipe insulation-wool	Building 1	Yellow
048-Bldg4	Pipe insulation-wool	Building 4	Yellow
049-Bldg4	Pipe wrap	Building 4	White

Table 1 ASBESTOS SAMPLING SUMMARY

Bayonne Barrel & Drum Site

Sample Number	Description	Location	Color
050-Bldg4	Pipe insulation-wool	Building 4 (front of building)	Yellow
051-Bldg4	Pipe wrap	Building 4 (front of building)	White
052-Bldg4	Pipe insulation-wool	Building 4 (rear of building)	Yellow
053-Bldg4	Pipe wrap	Building 4(rear of building)	White
054-Bldg3	Pipe insulation-wool	Building 3	Yellow
055-Bldg5	Pipe insulation-aircell	Building 5 (pipe run)	White
056-Bldg5	Pipe elbow	Building 5 (heater)	White
057-Bldg5	Pipe elbow	Building 5 (rear of building)	White
058-Bldg5	Roof tar-layer 1 (multi-layered)	Building 5	Black
059-Bldg5	Roof insulation-layer 2	Building 5	Brown
060-Bldg3	Roof materials (multi-layered)	Building 3	Black

Table 2 ASBESTOS RESULTS

Via EPA 600/R-93/116 Method using Polarized Light Microscopy
Bayonne Barrel & Drum Site

Sample Number	Sample Collection Date	Laboratory Number	Asbestos Type	% Asbestos
001-Bldg6	8/4/2003	050302891-0001	ND	NA
002-Bldg6	8/4/2003	050302891-0002	Chrysotile	10%
003-Bldg6	8/4/2003	050302891-0003	Chrysotile	2%
004-Little Bldg	8/4/2003	050302891-0004	ND	NA
005-Bldg8	8/4/2003	050302891-0005	Chrysotile	15%
006-Bldg8	8/4/2003	050302891-0006	ND	NA
007-Bldg8	8/4/2003	050302891-0007	Chrysotile	35%
008-Bldg8	8/4/2003	050302891-0008	ND	NA
009-Bldg9	8/4/2003	050302891-0009	Chrysotile	10%
009-Bldg9	8/4/2003	050302891-0061	ND	NA
010-Bldg9	8/4/2003	050302891-0010	ND	NA
011-Bldg9	8/4/2003	050302891-0011	Chrysotile	3%
011-Bldg9	8/4/2003	050302891-0062	Chrysotile	3%
012-Bldg9	8/4/2003	050302891-0012	ND	NA
013-Bldg9	8/4/2003	050302891-0013	Chrysotile	2%
013-Bldg9	8/4/2003	050302891-0063	Chrysotile	4%
014-Bldg9	8/4/2003	050302891-0014	Chrysotile	2%
014-Bldg9	8/4/2003	050302891-0064	Chrysotile	4%
015-Bldg9	8/4/2003	050302891-0015	ND	NA
016-Bldg9	8/4/2003	050302891-0016	ND	NA
017-Bldg9	8/4/2003	050302891-0017	ND	NA
018-Bldg9	8/4/2003	050302891-0018	ND	NA
018-Bldg9	8/4/2003	050302891-0065	ND	NA
019-Bldg8	8/4/2003	050302891-0019	ND	NA
020-Bldg1	8/4/2003	050302891-0020	ND	NA
021-Bldg1	8/4/2003	050302891-0021	Chrysotile	30%
022-Bldg1	8/4/2003	050302891-0022	ND	NA
023-Bldg2	8/4/2003	050302891-0023	ND	NA

Table 2 ASBESTOS RESULTS

Via EPA 600/R-93/116 Method using Polarized Light Microscopy
Bayonne Barrel & Drum Site

Sample Number	Sample Collection Date	Laboratory Number	Asbestos Type	% Asbestos
024-Bldg4	8/4/2003	050302891-0024	Chrysotile	2%
024-Bldg4	8/4/2003	050302891-0066	ND	NA
025-Bldg4	8/4/2003	050302891-0025	ND	NA
026-Bldg4	8/4/2003	050302891-0026	ND	NA
027-Bldg4	8/4/2003	050302891-0027	Chrysotile	15%
028-Bldg7	8/4/2003	050302891-0028	ND	NA
029-Bldg4	8/4/2003	050302891-0029	Chrysotile	2%
030-Bldg1	8/4/2003	050302891-0030	ND	NA
031-Bldg4	8/4/2003	050302891-0031	Chrysotile	5%
032-Bldg4	8/4/2003	050302891-0032	ND	NA
033-Bldg4	8/4/2003	050302891-0033	Chrysotile	20%
034-Bldg4	8/4/2003	050302891-0034	Chrysotile	10%
035-Bldg2	8/4/2003	050302891-0035	Chrysotile	5%
036-Bldg2	8/4/2003	050302891-0036	ND	NA
037-Bldg2	8/4/2003	050302891-0037	ND	NA
038-Bldg4	8/4/2003	050302891-0038	Chrysotile	20%
039-Bldg7&3	8/4/2003	050302891-0038	ND	NA
040-Bldg7&3	8/4/2003	050302891-0040	ND	NA
041-Bldg3	8/4/2003	050302891-0041	Chrysotile	10%
042-Bldg3	8/4/2003	050302891-0042	Chrysotile	15%
043-Bldg8	8/5/2003	050302891-0043	ND	NA
044-Bldg8	8/5/2003	050302891-0044	ND	NA
045-Bldg8	8/5/2003	050302891-0045	ND	NA
046-Bldg1	8/5/2003	050302891-0046	ND	NA
047-Bldg1	8/5/2003	050302891-0047	ND	NA
048-Bldg4	8/5/2003	050302891-0048	ND	NA
049-Bldg4	8/5/2003	050302891-0049	ND	NA
050-Bldg4	8/5/2003	050302891-0050	ND	NA

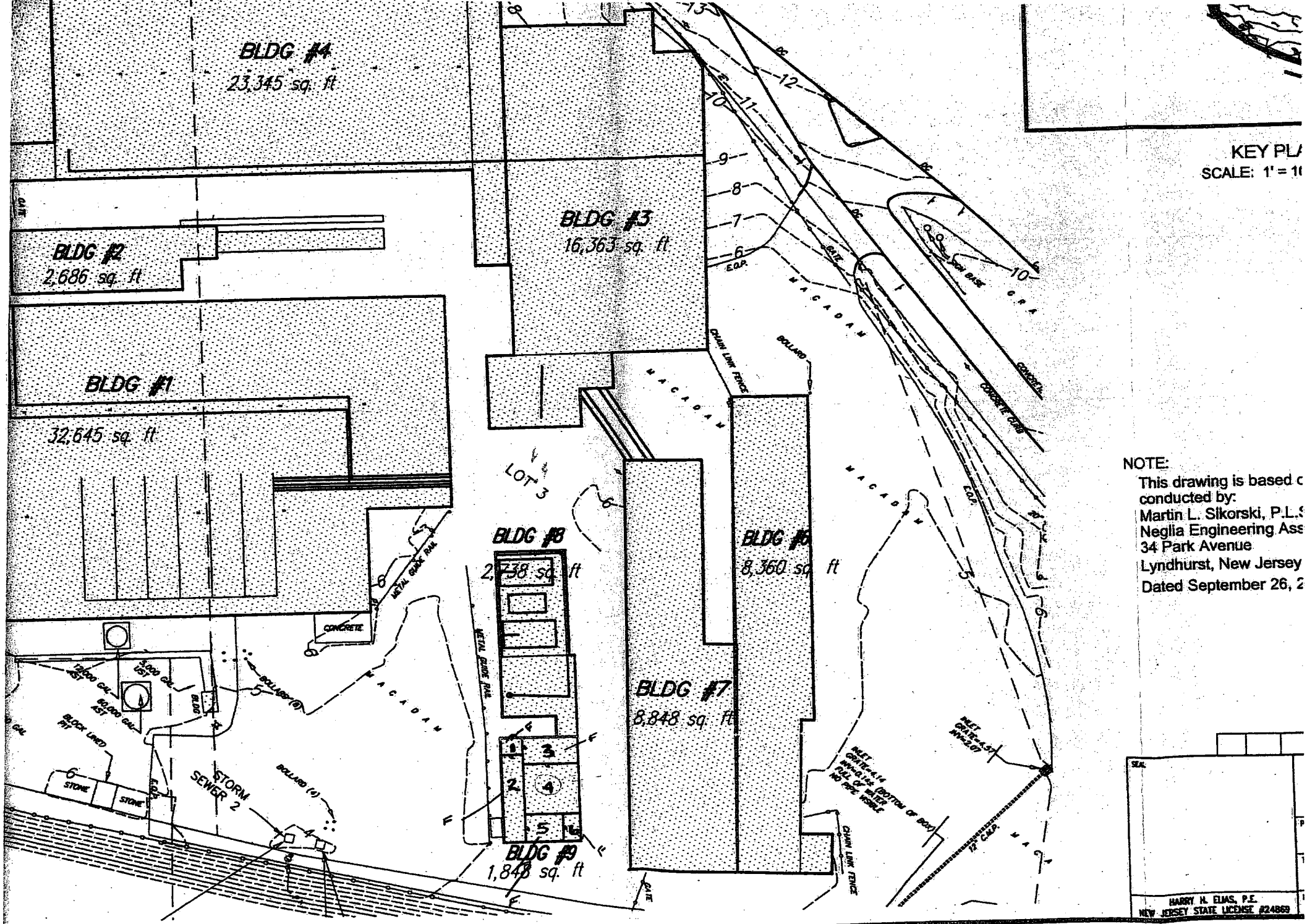
Table 2 ASBESTOS RESULTS

Via EPA 600/R-93/116 Method using Polarized Light Microscopy
Bayonne Barrel & Drum Site

Sample Number	Sample Collection Date	Laboratory Number	Asbestos Type	% Asbestos
051-Bldg4	8/5/2003	050302891-0051	ND	NA
052-Bldg4	8/5/2003	050302891-0052	ND	NA
053-Bldg4	8/5/2003	050302891-0053	ND	NA
054-Bldg3	8/5/2003	050302891-0054	ND	NA
055-Bldg5	8/5/2003	050302891-0055	Chrysotile	1.5%
056-Bldg5	8/5/2003	050302891-0056	Chrysotile	2%
057-Bldg5	8/5/2003	050302891-0057	Chrysotile	2%
058-Bldg5	8/5/2003	050302891-0058	Chrysotile	2%
059-Bldg5	8/5/2003	050302891-0059	ND	NA
060-Bldg3	8/5/2003	050302891-0060	ND	NA

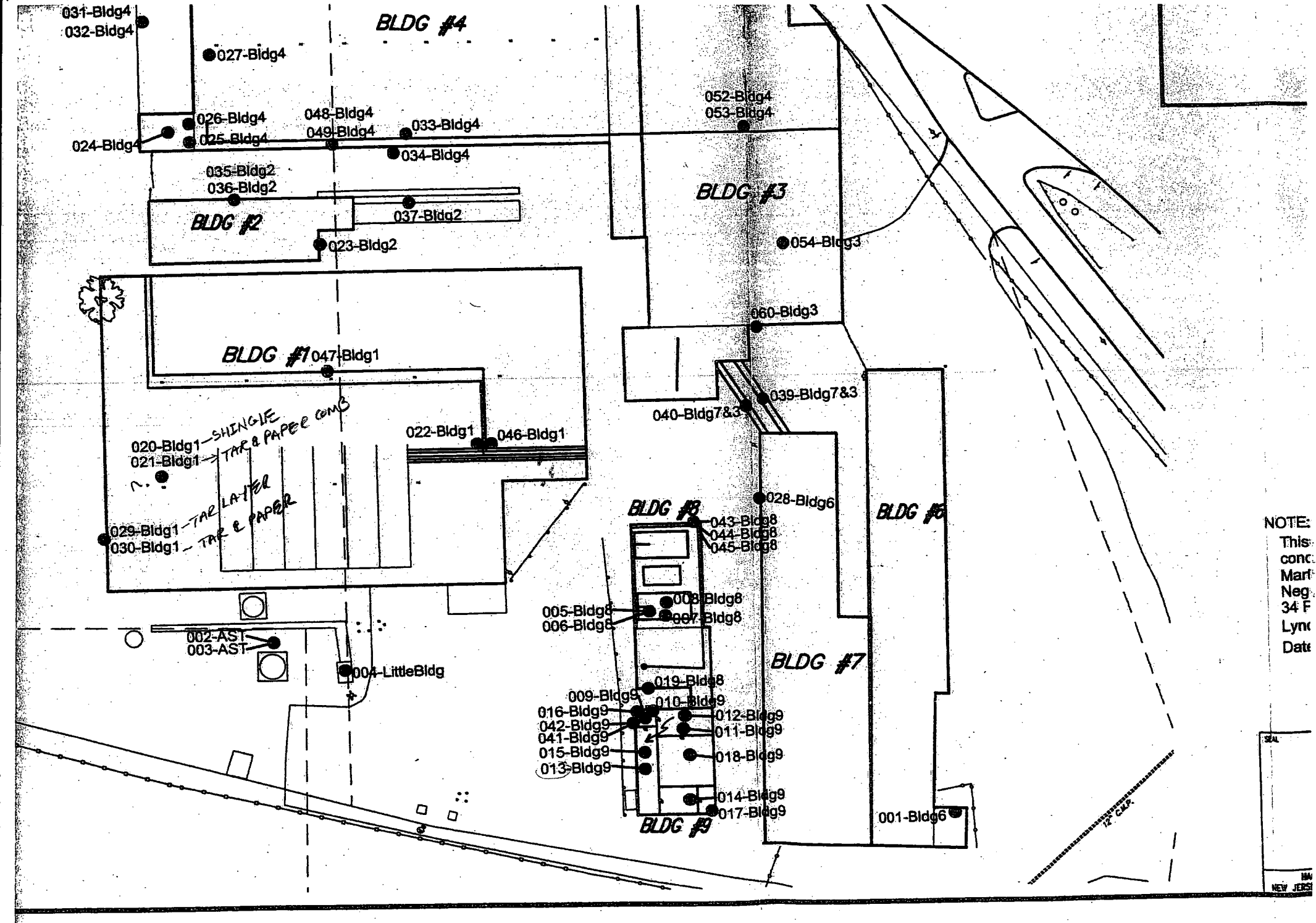
ND = Not detected

NA = Not applicable



NOTE:
This drawing is based c
conducted by:
Martin L. Sikorski, P.L.S
Neglia Engineering Ass
34 Park Avenue
Lyndhurst, New Jersey
Dated September 26, 2

SEAL
HARRY H. ELIAS, P.E.
NEW JERSEY STATE LICENSE #24869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053-Bldg4
026-Bldg4
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033-Bldg4
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049-Bldg4
034-Bldg4
035-Bldg2
036-Bldg2
BLDG #3
BLDG #2
037-Bldg2
023-Bldg2
054-Bldg3
060-Bldg3
BLDG #1
047-Bldg1
039-Bldg7&3
040-Bldg7&3
020-Bldg1—SHINGLE
021-Bldg1→TAR & PAPER COMB
022-Bldg1
046-Bldg1
028-Bldg6
BLDG #6
BLDG #8
043-Bldg8
044-Bldg8
045-Bldg8
029-Bldg1—TAR LAYER
030-Bldg1—TAR & PAPER
008-Bldg8
005-Bldg8
007-Bldg8
006-Bldg8
002-AST
003-AST
004-LittleBldg
BLDG #7
019-Bldg8
009-Bldg9
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016-Bldg9
012-Bldg9
042-Bldg9
011-Bldg9
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014-Bldg9
017-Bldg9
BLDG #9
001-Bldg6
12" C.M.P.
NOTE:
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